

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP00/09183

A. CLASSIFICATION OF SUBJECT MATTER
Int.Cl⁷ H01L21/288

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
Int.Cl⁷ H01L21/288, C25D5/00-7/12, C25F1/00-7/02
B23H1/00-11/00, H01L21/68, H01L21/304Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Jitsuyo Shinan Koho 1926-1996 Toroku Jitsuyo Shinan Koho 1994-2001
Kokai Jitsuyo Shinan Koho 1971-2001 Jitsuyo Shinan Toroku Koho 1996-2001

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP, 903774, A (EBARA CORPORATION), 24 March, 1999 (24.03.99), Par. Nos. 0030-0057; Figs. 1-7 & JP, 11-154653, A Par. Nos. 0019-0043; Figs. 1-7	1-62
Y	JP, 7-107199, B (Shimada Rika Kogyo K.K.), 15 November, 1995 (15.11.95), example (Family: none)	1-4, 31, 33, 35, 36, 38, 41, 44, 49, 50-54, 62
Y	JP, 7-81197, B (NEC Corporation), 30 August, 1995 (30.08.95), Column 4, line 44 to Column 6, line 10 (Family: none)	1-4, 31, 33, 35, 36, 38, 41, 44, 49, 50-54, 62
PY	JP, 2000-328297, A (Dainippon Screen MFG. Co., Ltd.), 28 November, 2000 (28.11.00), Par. Nos. 0037-0053; Figs. 1, 2 (Family: none)	1-4, 31, 33, 35, 36, 38, 41, 44, 49
Y	JP, 11-87276, A (Ebara Corporation), 30 March, 1999 (30.03.99), Claim 4 (Family: none)	1-26, 36-45

☒ Further documents are listed in the continuation of Box C.
 ☐ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document but published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search
03 April, 2001 (03.04.01)Date of mailing of the international search report
17 April., 2001 (17.04.01)Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP00/09183

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP, 878834, A (MOTOROLA, INC.), 18 November, 1998 (18.11.98), Column 7, line 52 to Column 8, line 16 & JP, 10-321561, A Par. No. 0023	1-26, 36-45
Y	JP, 9-53198, A (Denso Corporation), 25 February, 1997 (25.02.97), Par. No. 0013 (Family: none)	5-6
Y	JP, 11-269693, A (JAPAN ENERGY CORPORATION), 05 October, 1999 (05.10.99), Claims (Family: none)	7-13
Y	EP, 761387, A (EBARA CORPORATION), 12 March, 1997 (12.03.97), page 5, line 2 to page 6, line.7 & JP, 9-117857, A, Par. Nos. 0022-0025	16-18
Y	JP, 11-198033, A (Canon Inc.), 27 July, 1999 (27.07.99), Claims & US, 6142855, A	29, 30, 55-61
Y	JP, 10-335288, A (Sony Corporation), 18 December, 1998 (18.12.98), Claims (Family: none)	29, 30, 55-61
Y	JP, 10-209091, A (Nikon Corporation), 07 August, 1998 (07.08.98), Claims (Family: none)	29, 30, 55-61
Y	JP, 9-36072, A (Toshiba Corporation), 07 February, 1997 (07.02.97), Claims (Family: none)	29, 30, 55-61
Y	JP, 8-316179, A (Sony Corporation), 29 November, 1996 (29.11.96), Claims (Family: none)	29, 30, 55-61
Y	JP, 8-240413, A (Toshiba Corporation), 17 September, 1996 (17.09.96), Claims (Family: none)	29, 30, 55-61
Y	JP, 55-85692, A (Hitachi, Ltd.), 27 June, 1980 (27.06.80), Claims; Fig. 6 (Family: none)	32, 37, 40, 43
Y	US, 5853559, A (Mitsubishi Denki Kabushiki Kaisha), 29 December, 1998 (29.12.98), Column 3, line 61 to Column 4, line 37; Fig.1 & JP, 10-226896, A, Par. No. 0010; Fig.1	34, 39, 40, 42, 43, 46-48, 50-54, 62
Y	JP, 6-169003, A (Toshiba Corporation), 14 June, 1994 (14.06.94), Par. No. 0018 (Family: none)	55-61